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HISTORY OF THE DISAPPEARANCE OF NATIVE FAUNA FROM THE NULLARBOR PLAIN THROUGH THE EYES OF LONG TIME RESIDENT AMY CROCKER

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The southern coastal region of Australia was first explored from the sea by the Dutch in 1627, the French in 1792, the English in 1802, and finally by Edward John Eyre, who made the first overland crossing of the Nullarbor in 1841. Initial settlement of the area followed, with Yalata Station established by William Swan in 1858 near Fowler's Bay in South Australia. Further settlement did not take place until the 1870's with Mundrabilla Station in 1871, Moopina in 1873, Madura in 1876 and Balladonia in 1880 (Allen 1987).

One of the early settlers of this area, Amy Eda Crocker was born in Albany, Western Australia in November 1902, and at only seven weeks of age, voyaged along the southern coast to Point Malcolm at the eastern border of what is now the Cape Arid National Park. Here she began her life on the Nullarbor, residing between Cape Arid and Balladonia Station, until her death in November 1989. As a keen naturalist, artist and writer, her years of observation provide an account of the region since the early days of European settlement, and man's influence on the environment.

Mrs Crocker provided an overview of her impressions of the changing fauna within her surroundings, with a brief letter written the year of her death. Here follows an excerpt of her letter, describing the impact of European settlement, from a lifetime of living on the Nullarbor.

"Balladonia Station
via Norseman WA 6443

My grandfather, Stephen Ponton, with his brother William and their partner, John Sharp, were 'the' pioneers of this district, having driven their sheep and cattle overland along the coast from Albany in 1873. They settled at Point Malcolm for a few years until they discovered Balladonia

in 1879. They at once settled here, and it has been my family home ever since. My parents joined them in 1898, and I was born in Albany in November 1902, my mother bringing me home to Balladonia at the tender age of 7 weeks! Always a keen naturalist, I had the help of my uncle William Ponton Junior as well. He joined his father, Stephen, here in 1880.

In those days, there were lots of little Australian animals, even possums, which had gone before my day. My uncle told me of a strange virus which attacked all small marsupials, killing many species right out. Possums were among these. I think this occurred in the 1880s or 1890s. I was once told by a man from the eastern wheatbelt that a similar virus occurred there, but unfortunately I did not know his name.

Of the few animals which survived, I knew the bilbies well. They were fairly numerous until late 1917 when foxes became established in our district. Spotted native cats were also about, though not so numerous.

The introduced fox, is to my mind, the greatest pest in Australia. People of little experience say the domestic cat gone wild is a pest – perhaps they are, in certain localities, but speaking for this district and from my own personal knowledge, wild cats were here a good 30 years before foxes came, and we still had our own little animals. We still had wrens and such-like birds, nesting on or near the ground – but since foxes, we have lost all these creatures, as well as many of our large lizards and our natural bush snails. Foxes are even able to get young magpies and squeakers [grey currawongs] from their roosting place in tall trees.

Foxes have eyes which reflect light very brilliantly. So, on moonlit nights, they quietly circle the tree in which the birds camp. And when the birds lean forward, they lose their grip on their perch and so drop to the ground, or near enough for the fox to grab them.

The Government is showing great concern trying to prevent starlings from gaining a hold in Western Australia. I wish they had shown the same care and vigilance when foxes made their way across to Western Australia.

As I've told you, the fox was not known here until late in 1917 (rabbits came to Balladonia in 1904). One of the first birds to suffer from foxes was the curlew or stone plover. They were caught and killed easily and within a few years were all gone. Plain turkeys used to feed freely here, but they too have gone, only coming back in good seasons when there is plenty of green grass, but they do not stay long and never nest here now. Babblers, whose long, stick nests were so common have all gone too. I miss these cheeky, noisy birds with their deep, scolding voices and sharp whistles. Mallee hens have gone too, although we meet with one lone traveller occasionally.

In the early 1920s, my brother-in-law was Postmaster at Eyre's Sandpatch. My uncle often took us to see my sister's family there. When travelling at night we were amused by the number of little rat-kangaroos jumping across the road in the car lights. Such great leaps for such a small animal! There were lots of other running and hopping little creatures too, but they have all gone now. Foxes are responsible for these. But we had some other little burrowing creatures

here at Balladonia, in the very early days, before foxes. They were called Boodie rats, and I believe they were about the size of a small rabbit. I never saw them, as the virus had killed them all before my time, but they made huge warrens which can still be seen today, in the limestone ridges. They dig deep and under great slabs of limestone. When rabbits came in 1904 they found ready made homes in the Boodie warrens, and use them to this day.

Another strange little mouse-sized animal we used to have, was one which collected the round, hard stones of the jamberry or quandong (Wild Peach). These have very nice kernels and the little mouse took them in its forepaws, and having a pair of very strong teeth in the front lower jaw, they would rotate the nut against these with their paws and eat a large round hole enabling them to eat the kernel. I have some of these nuts but I never saw the mouse, though I've looked carefully in hollow trees for them where many of the stones were stored. But I think they were all gone before my time and my uncle agreed with me. We had the Possum Dormouse until a few years ago, but I've not seen one for some years.

Amy E. Crocker."

Mrs Crocker contributed additional information about introduced animals during an interview with Chris Jeffery from the WA Oral History Programme in 1978. She relates that "The rabbits did an awful lot of damage because they ringbarked the trees...they just simply cut them, and cut them down until they killed them...And the foxes...killed out most of our little marsupials [and] our ground birds." She believes that the distribution of foxes originally followed the spread of rabbits. "I don't think anyone realises that doesn't live out in these places how bad the foxes are...if it's not a good season, and the ewes are a bit weak, they get tired of guarding their lambs and the foxes just take them".

Predation and competition by feral animals are commonly regarded as primary contributors to the decline and extinction of native species (Jarman 1994). Although Mrs Crocker's story is anecdotal and we can never be certain of the precise species to which she refers, it provides some early record of the impact of foxes and rabbits. Her dates approximate those already known for the introduction and spread of foxes and rabbits, with rabbits first recorded in the region around 1896 (Stodart and Parer 1988) and foxes first reported 160 kilometres west of the South Australian border in 1915 (Long 1988).

The time of disappearance of the burrowing bettong or 'boodie rat' (*Bettongia lesueur*), is of a more uncertain nature. Burbidge (1995) suggests that their disappearance from Western and Central Australia coincided with the spread of the fox. While it had disappeared from Victoria by 1863 (Burbidge 1995), it persisted in the wheatbelt of Western Australia until as late as the 1940s (Kitchener and Vicker 1981) and possibly in the Northern Territory until the 1960s (Finlayson 1961; Burbidge *et al.* 1988). The last record from the Nullarbor region is from Rawlinna in 1928 (Short and Turner 1993). Mrs Crocker suggests that they had already become extinct prior to the introduction of foxes in the Nullarbor region, due to some "strange

virus". Shortridge (1909) also reports a disappearance of species first noticed in 1880, thought to be caused by a disease which "appeared to be a kind of marasmus".

Feral cats rate a brief mention. The time of the first introductions of cats to Australia is unknown, with some evidence suggesting that it may have been prior to European settlement (Dickman 1993). It is possible that the spread of cats brought potentially fatal parasites and diseases such as toxoplasmosis (Lenghaus *et al.* 1990; Obendorf and Munday 1990) in contact with the native fauna which could account for the mystery virus. Toxoplasmosis is recognised as a "common cause of death in captive and wild Australian marsupials" (Reddacliff *et al.* 1993).

The "rat-kangaroos" which survived until the 1920s were almost certainly the Brush-tailed Bettongs (*Bettongia penicillata*). These were known to occur across the Nullarbor region and have persisted in the south-west of Western Australia in isolated pockets, despite the presence of foxes. Bilbies (*Macrotis lagotis*) were common throughout the arid and semi-arid zones of Australia until the early 1900s (Johnson 1995) and still remain in Central Australia. Their decline is thought to be due to a number of factors, including introduced predators (Johnson 1995).

A. J. Carlisle, another long-term resident of the Nullarbor region, reported that a major decline in mammal species occurred in the 1930s. He recalls observing 'zebra rats' (thought to refer to the Western Barred Bandicoot *Perameles bougainville*), Stick-Nest Rats (*Leporillus conditor*), Rabbit-eared Bandicoots or Bilbies (*Macrotis lagotis*), and 'Grass-nest Rats' (thought to be the Brush-tailed Bettong) prior to 1938 (Brooker 1977). All of these animals are now regarded as extinct in the Nullarbor region of Australia (Strahan 1995), the first two being extinct on the Australian mainland. Carlisle records the last sightings of the Brush-tailed Bettong and Native Cat on the north-western Nullarbor in 1938 (Brooker 1977, Boscacci *et al.* 1987).

It is likely that Mrs Crocker's reference to "other running and little hopping creatures" may include the Western Barred Bandicoot and Stick-nest Rats seen by Carlisle. The Western Barred Bandicoot was last collected at Ooldea to the east of the Nullarbor Plain in 1922 (Kitchener and Vicker 1981) and Rawlinna in Western Australia in 1929 (Friend 1990). The Greater Stick-nest Rat was formerly distributed across the semi-arid and arid zones of Australia (Copley 1993) but had become rare by the middle of the 19th century and then only survived on the mainland where sheep and cattle had not become established (Robinson 1995). They were last collected in the Nullarbor region in the 1930s (Copley 1993).

There is some evidence that the Western Pygmy Possum (*Cercartetus concinnus*) resided in the Nullarbor region around Eyre (R.A.O.U. 1982), which may have been Mrs Crocker's "Possum Dormouse" (Smith 1995). Larger possums (*Trichosurus vulpecula*) are known from fossil evidence to have occurred in this area but are now rare in central Australia (Baynes 1987; How and Kerle 1995). The Western Mouse (*Pseudomys occidentalis*) has been associated with accumulations of chewed quandong (*Santalum acuminatum*) nuts (Whisson and Kitchener 1995). The nuts are found

with the kernel extracted by a "small chewed hole in the hard seed casing" (Morris *et* al. 1993), in a similar fashion to that described by Mrs Crocker. The species no longer occurs in the Nullarbor area, but past distributions from fossil evidence include the Balladonia region (Whisson and Kitchener 1995; Baynes 1987). The Western Quoll or Native Cat (*Dasyurus geoffroii*) was widespread throughout the Nullarbor in the early 19th century but has now declined to a small area in the south-west of Western Australia (Serena and Soderquist 1995).

Malleefowl (*Leipoa ocellata*) were formerly abundant across the southern and central mainland of Australia (Priddel and Wheeler 1994) and were patchily distributed across the Nullarbor in the Cape Arid to Eucla area (Storr 1987). They nest on the ground and their decline during the last century has been attributed to predation by foxes and feral cats (North 1917; McColl 1929; Griffiths 1954), as well as other factors such as habitat loss and fragmentation (Frith 1962), and changes in fire regimes (Benshemesh 1992). The Australian bustard (*Ardeotis australis*) or "plain turkey", is also a ground-nesting bird (Grice *et al.* 1986), still occurring throughout the arid zones of Australia (Blakers *et al.* 1984) and common in good years on the Nullarbor Plain (Storr 1987). The bush thick-knee or "stone plover" (*Burhinus magnirostris*) has not been recorded in this area (Storr 1987). White-browed Babblers (*Pomatostomus superciliosus*) are still found across the Nullarbor (Blakers *et al.* 1984). It is possible that thick-knees occurred across the Nullarbor and probable that all these birds mentioned by Mrs Crocker have indeed decreased in abundance in the Balladonia region since the introduction and spread of foxes and feral cats.

The "natural bush snails" are most likely to be from the *Bothriembryon* genus, with white, high-spired shells and commonly 20 to 30 mm long. Other native snails of the region are smaller and unlikely to be noticed by people or foxes (Johnson, M. S. University of WA *pers comm.*).

The use of oral history to reconstruct the past environment is a useful tool (Burbidge *et al.* 1988). The collection of information from reliable sources should be documented while the ability to do so still exists. While accuracy may be questioned, there is also a wealth of information that is reliable, particularly when the opportunity arises for verification by a number of alternative sources.

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